Amendments to the claims:

The following listing of claims replaces all prior versions of the claims:

1. (Currently Amended) A method of embedding images from other sources within images captured by a viewing unit in motion, by transmitting and analyzing the positional coordinates of the viewing unit during acquisition of a sequence of video images while the viewing unit is moving, the method comprising: ~~The invention consists of a process for transmitting the positional coordinates of a viewing device during the acquisition of a sequence of video images while the viewing device is moving through space along a trajectory determined with respect to a defined reference point, characterized according to at least the following steps:~~

- A preliminary step consisting of attaching the viewing unit ~~(10, 10')~~ to [[the]] a first subsystem ~~(11, 11')~~ which contains an inertial sensing unit delivering data signals representing [[the]] spatial coordinates and [[the]] an instantaneous inclination of [[that]] the viewing unit ~~(10,10')~~ with respect to a reference point;
- A first step of acquiring ~~involving the acquisition~~, in real time, [[of]] said data signals during the movement of the viewing unit ~~(10, 10')~~ along a trajectory (*t*) and ~~their transmission~~ transmitting the data signals to a second subsystem ~~(12, 2)~~ which includes equipment for processing ~~these~~ the data signals [[(4)]] using a stored software program;
- A second step ~~consisting~~ of processing ~~these~~ the data signals, either in real time and/or deferred for later analysis, so as to determine [[the]] positional coordinates, and improving the quality of the acquired data by applying an image analysis procedure.

2. (Currently Amended) ~~Furthermore, the invention includes a process, according claim 1, wherein the said~~ The method of claim 1, wherein the reference point (*XYZ*) is an orthonormal trihedron and the coordinates represent the position of the viewing unit ~~(10, 10')~~ along the ~~said~~ trajectory (*t*) in relation to [[the]] axes of the trihedron of the reference point (*XYZ*) and the inclination data represents the angles of azimuth, elevation and roll around the axis of the ~~said viesing device~~ unit ~~(10, 10')~~, ~~the said axis intersecting~~ which intersects the center (C) of the focal plane (FP) of the ~~said~~ acquired images (I).

3. (Currently Amended) ~~Furthermore, the invention includes a process, according to either of the preceding claims,~~ The method of claim 1 or 2, wherein, during a supplementary preliminary step, the said second subsystem ~~(12,2)~~ is configured ~~(51)~~ in a

manner conforming to the description of the characteristics of the components comprising the said first ~~(11, 11')~~ and second ~~(12,2)~~ subsystems, including the characteristics of the said viewing device ~~(10, 10')~~ and of the software contained in the data processing unit (4) of the said second subsystem ~~(12,2). In another supplementary preliminary step, the said inertial sensing unit (52) is initialized and standardized with respect to a reference point of origin.~~

4. (Withdrawn - Currently Amended) ~~Furthermore, the invention includes a process, according to either of the preceding claims,wherein, during a supplementary preliminary step, the said data signals, representing the positional coordinates and the instantaneous inclination of the said viewing device (10, 10') with respect to the said reference (*XYZ*), are synchronized (56). Another supplementary preliminary step involves~~ The method of claim 1, wherein the application of error corrections [[(53)]] to the said positional data streams delivered by the said inertial sensing unit, further comprising another supplementary preliminary step, wherein the said inertial sensing unit is initialized and standardized with respect to a reference point of origin. ~~Another supplementary preliminary step involves further improving the quality of the said acquired data (55) by applying an image anaysis procedure, included among the software contained in the data processing unit (4). A final supplementary preliminary step consists of storing the said acquired data (57) within the hard drive data storage module (403) of the said data processing unit (4).~~

5. (Withdrawn - Currently Amended) ~~Furthermore, the invention includes~~ The method of claim 1, further comprising a process, ~~according to either of the preceding claims,~~ for integrating the focal planes (*FP*) of images (*I*) obtained using the said viewing unit ~~(10, 10')~~ with the focal planes of images from other sources whose spatial coordinates are already known, by acquiring data identifying the focal length used by the said viewing unit ~~(10, 10')~~ and by capturing, in real time, data signals representing the spatial coordinates and the instantaneous inclination of the ~~said~~ viewing unit ~~(10, 10')~~ with respect to the ~~said~~ reference (*XYZ*), in order to determine the corresponding coordinates of the focal planes (*FP*) of the ~~said~~ images (*I*) within the ~~said~~ video sequence, the ~~said~~ coordinates of the focal plane (*FP*) of the image (*I*) being:

- the inclination of the ~~said~~ focal plane (*FP*) in space with respect to the ~~said~~ reference (*XYZ*), represented by the angles of elevation, azimuth and roll; and

– - the position of the center I of the ~~said~~ plane (*FP*) of the image (*I*) with respect to the ~~said~~ reference point (*XYZ*).

6. (Withdrawn – Currently Amended) ~~Furthermore, and according to either of the preceding claims,~~ The method according to claim 1, further comprising a process ~~exists~~ for navigating within a three-dimensional universe [[(59)]] involving a preexistant three-dimensional décor, the process comprising ~~. The said process consists of the~~ supplementary steps of acquisition and transmission to the second subsystem ~~(2, 12),~~ in real time, of data representing the spatial coordinates and the instantaneous inclination of the ~~said~~ viewing unit ~~(10, 10')~~ with respect to the reference point (*XYZ*), as well as the focal length used, and the images captured by the ~~said viewing~~ unit ~~(10, 10'). T~~,the data signals and the images are then processed using software for three dimensional reconstitution, in a manner so as to visualize, in real time, an outline of the framing of the ~~said viewing~~ unit ~~(10, 10')~~ within a preexisting three-dimensional virtual décor.

7. (Withdrawn – Currently Amended) ~~Furthermore, the invention includes a~~ A system for the transmission and processing of data representing the position in space of a viewing unit ~~(10, 10')~~ capturing a sequence of video images while moving in space along a trajectory determined with respect to a reference ~~in order to implement the processes, according to claims 1 to 4, involving a first subsystem (11, 11') attached to a viewing unit (10, 10'). The said~~ the system comprising:

- a first subsystem ~~(11, 11') comprises~~ that includes an inertial sensing unit delivering ~~said~~ data signals representing the spatial coordinates and instantaneous inclination of the ~~said~~ viewing unit ~~(10, 10')~~ with respect to ~~the said~~ a reference point (*XYZ*); ~~. In addition, the said system (1, 1') includes~~
- a second subsystem ~~(2, 12)~~ provided with the ability to process these data according to a stored software program [[(4)]] and possessing a means for supplying electrical energy ~~(400-401)~~ to all or part of the system; and ~~(1, 1'). Finally, it is envisaged that the system will include~~

connecting devices ~~(112, 112')~~ for transmitting the ~~said~~ signals from the first ~~(11, 11')~~ to the second subsystem ~~(2, 12).~~

8. (Withdrawn - Currently Amended) ~~With respect to~~ The system of claim 7, wherein the viewing device ~~(10, 10')~~ is a video camera.

9. (Withdrawn - Currently Amended) [[In]] The system of claims 7 [[&]] or 8, wherein the inertial sensing unit includes at least one gyrometer and one accelerometer with three distinct, non-coplanar axes.

10. (Withdrawn - Currently Amended) ~~With respect to~~ The system of any of claims 7 to 9, wherein in order to improve the determination of spatial coordinates of the ~~said~~ viewing device ~~(10, 10'),~~ to improve the synchronization between the said acquired data and the images (*I*) obtained, and/or to apply corrections to the said acquired data, the system ~~will include~~ comprises at least one of: ~~the following components, housed within theviewing unit (10, 10'), the first subsystem (11,11') or the second subsystem (2,12);~~

- A tri-flux rotary magnetometer;
- Two inclinometers, orthogonal with respect to each other;
- A satellite localization device of the "GPS" type;
- An electronic localization device, using either electromagnetic or electrostatic fields;
- A magnetometer of one or several fluxes, either static or dynamic;
- An odometer;
- A temperature sensor;
- A precision quartz timer;
- An auxiliary video camera, attached to said first subsystem, ~~and/or~~ and
- A microphone ~~(23).~~

11. (New) The method of claim 4, further comprising improving the quality of the said acquired data by applying an image analysis procedure, included among the software which is included in the data processing unit.

12. (New) The method of claim 1, further comprising a supplementary preliminary step consists of storing the said acquired data within the hard drive data storage module of the said data processing unit.